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| APPLICATION NO.               | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------------|-------------|----------------------|---------------------|------------------|
| 10/790,788                    | 03/03/2004  | Yui-Shin Fran        | 0941-0929P          | 4364             |
| 2292                          | 7590        | 03/13/2006           | EXAMINER            |                  |
| BIRCH STEWART KOLASCH & BIRCH |             |                      | ROY, SIKHA          |                  |
| PO BOX 747                    |             |                      | ART UNIT            |                  |
| FALLS CHURCH, VA 22040-0747   |             |                      | PAPER NUMBER        |                  |
|                               |             |                      | 2879                |                  |

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/790,788

Applicant(s)

FRAN ET AL.

Examiner

Sikha Roy

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The Preliminary Amendment, filed on March 3, 2004 has been entered and is acknowledged by the Examiner.

#### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Specification***

Applicant is reminded of the proper language and format for an abstract of the disclosure. The form and legal phraseology often used in patent claims, such as "comprises" should be avoided.

The disclosure is objected to because of the following informalities:

Page 4 lines 18, 19 'elongating of the electrode' should be replaced by --elongation of the electrode--.

Appropriate correction is required.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claims 1,4 and 8 are objected to because of the following informalities:

In claim 1 line 12, claim 4 line 2 and claim 8 line 2 'bottom glass' should be replaced by --bottom glass plate--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,4 - 9 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 09245726 A to Yoshioka et al.

Regarding claim 1 Yoshioka discloses (Figs. 1-3, paragraphs [0003], [004], [0008] – [0012]) a flat lamp comprising an upper glass plate 1, a bottom glass plate 2, sidewall to form a closed space with the upper glass plate and the bottom glass plate, at least two electrodes 7(along with 7a,7b) and 8 (along with 8a,8b) parallel extending into the closed space, at least two rear sleeves and front glass sleeves 10 positioned in the closed space, secured on the bottom glass plate 2 and supporting the electrodes. Yoshioka further discloses front glass sleeves 10 through which electrodes 7a, 8a extend outward from the closed space.

Regarding claim 2 Yoshioka discloses (paragraph [0013], Fig. 3) the end surface of the electrodes 7b and 8b to the rear glass sleeve are spaced apart so that there is a distance from the junction edge to the electrode ends.

Regarding claims 4 and 5 Yoshioka discloses (Figs. 2,3 [0012]) the rear glass sleeve 10 (on the rear side) and the front glass sleeve 10 (on the front side) are secured on the bottom glass plate 2 between the sidewalls and the electrodes are held in.

Regarding claims 6, 7 and 9 Yoshioka discloses ([0012]) heat joining of the upper glass plate 1 and bottom glass plate 2 is carried out by the glass sleeves made of glass frit and hence it is inherent that the glass sleeves are melted to seal the closed space.

Regarding claim 8 Yoshioka discloses the front glass sleeve is bonded to the bottom glass plate between the sidewalls and the closed space is formed. The Examiner notes that the claim limitation that "closed space is sealed by means of glass gel " is drawn to a process of manufacturing which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be distinguished over the prior art by a process limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (see MPEP 2113). Therefore, it is the position of the examiner that it would have been obvious to one of ordinary skill in the art that the flat lamp disclosed by Yoshioka is at least a fully functional equivalent to the Applicant's claimed invention as evidenced by the suggestion of all of the Applicant's claimed structural limitations.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 09245726 A to Yoshioka et al.

Regarding claim 3 Yoshioka does not explicitly disclose the elongation of the electrode due to heating being less than the sum of the linear heating expansion of the rear glass sleeve and the spacing.

It is well known in the art that when current flows, the electrodes get heated and consequently there is an expansion/elongation of the electrodes. Yoshioka discloses a predetermined spacing is provided between the glass sleeve edge and the end of the electrode so as to prevent contact between the two and any thermal stress and deformation of the electrode that can be generated as a result. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to specify the expansion of the electrode due to heating is less than the sum of the thermal expansion of the rear glass sleeve and the spacing so that there exists a space between the end of the electrode and the edge of the glass sleeve during the operation of the lamp and consequent heating, for preventing contact between the two and any thermal stress and deformation of the electrode that can be generated as a result.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 09245726 A to Yoshioka et al. and further in view of U.S. Patent 5,520,855 to Ito et al.

Claim 10 differs from Yoshioka in that Yoshioka does not exemplify the electrodes inserted and secured through the front glass sleeves by glass gel.

Ito in pertinent art discloses (abstract) glass gel is excellent in water resistance, durability and has high strength.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use glass gel as taught by Ito for securing the electrodes through the glass sleeve of Yoshioka for providing excellent water resistance, durability and high strength of the sealing material and thus enhancing the operating life of the lamp.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 6,448,705 to Chen et al., U.S. Patent 6,700,326 to Devir and U.S. Patent 6,933,669 to Jean et al. disclose structure of planar fluorescent lamp.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Sikha Roy*

Sikha Roy  
Patent Examiner  
Art Unit 2879